

Suggested ZEV Application Format for Certification

<u>Section No.</u>	<u>Title</u>
01.00.00	Communications
.01.00	Mailing Information
.01	Certification Information
.02	Responsible official
02.00.00	Confidential Information
.01.00	Statement of confidentiality
.02.00	Test vehicle selection
	"Worst case" test vehicle selection and manufacturer defined criteria if more than one model offered (e.g. 2-door vs 4-door).
.03.00	Projected California sales
03.00.00	Facilities, equipment, and test procedures
	(Manufacturers to keep information regarding facilities and equipment on file.)
.01.00	Procedure to determine mass emissions of the fuel-fired heater
.02.00	Battery pre-conditioning procedures (if necessary)
04.00.00	(Reserved)
05.00.00	(Reserved)
06.00.00	Maintenance
.01.00	Test vehicle scheduled maintenance
.02.00	Recommended customer maintenance schedule
.03.00	Lubricants and heater fuels, if any
07.00.00	Vehicle Emission Control Information (VECI) and Environmental Performance (EP) Labels
.01.00	VECI Label locations
.02.00	Sample emission control information labels
.03.00	Sample EP Label (Formerly called the Smog Index label)
.04.00	Statement of compliance

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<u>Section No.</u>	<u>Title</u>
08.00.00	General technical description Manufacturer's sales brochures or owner's manual may be submitted to satisfy the requirements in this section
.01.00	Description of Propulsion System
.02.00	Description of Motor(s)
.03.00	Description of Batteries
.01	Battery charging capacity
.02	Self-discharge information
.03	Description of thermal management system
.04	Definition of end-of-life
.05	Description of battery disposal plan
.04.00	Description of Controller/Inverter
.05.00	Description of Transmission
.06.00	Description of climate control system
.01	Electric Heat Pump
.02	Fuel-Fired Heater
.03	Climate control system logic
.04	Tamper resistance of climate control system that includes a fuel-fired heater
.07.00	Description of Regenerative Braking System
.01	Control logic
.02	Percentage of braking performed on road by each axle
.08.00	Description of charger
.01	Proper recharging procedures
.02	Power requirements necessary to recharge vehicle
.09.00	Accessories which draw energy from the batteries
.10.00	Other unique features (e.g. solar panels)
.11.00	Description of warning system(s) for maintenance / malfunction
.01	Cut off terminal voltages for prevention of battery damage
09.00.00	(Reserved)
10.00.00	(Reserved)
11.00.00	Starting and shifting schedules
12.00.00 through 16.00.00	(Reserved)

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<u>Section No.</u>	<u>Title</u>
17.00.00	California requirements
.01.00	Statement of compliance
.01	General statement
.02	Driveability statement
.02.00	Supplemental Data and Certification Review Sheets
.03.00	(For vehicles equipped with a fuel-fired heater only) Engineering evaluation of zero evaporative emissions under any and all operating conditions .
.04.00	Credits
.01	Description of multi-manufacturer arrangements
.02	Credit calculation
.05.00	Vehicle Safety
.01	All information for safe operation of vehicle
.02	Information on safe handling of battery system
.03	Description of emergency procedures
.06.00	Description of fuel-fired heater / fuel tank evaporative system

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MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: _____ Engine Family: _____

Veh Class(es): PC____, LDT1____, LDT2____, MDV2____, MDV3____, MDV4____, MDV5____

No. of ZEV Credits per vehicle: _____

Fuel Type: Electro-chemical Battery____, Fuel Cell____, Capacitor____, Other (specify)_____

Battery Type(s): Lead Acid____ Nickel Cadmium____ SBLA____ Sodium Sulfur____

Sodium Nickel Chloride____ Nickel Metal Hydride____ Lithium Metal Disulfide____

Zinc Air____ Zinc Bromine____ Lithium polymer____ Other (specify):_____

Total Battery Weight:_____ Total Battery Volume:_____ Battery specific energy:_____

No. of batteries or modules per vehicle:_____ Total Battery Voltage:_____

Charger(s): On-board____ Off-board____ Conductive____ Inductive____.

Drive Motors(s): AC Induction____ DC Brush____ DC Brushless____

Switched Reluctance____ Other (specify):_____.

No. of Drive Motors____ Rated motor power____@____rpm Max rpm:_____.

Drive: FWD____ RWD____ 4WD-FT____ 4WD-PT____

Regenerative Braking: No____ Yes____ FW____ RW____ AW____.

Driver Controlled Regen Braking: Yes____ No____ Coast Regen Braking: Yes____ No____.

Air Conditioning: Yes____ No____.

Fuel Fired Heater: Fuel Type: Gas____ Diesel____ CNG____ LNG____,

LPG____ Other (specify):_____ Rated Heat Power:_____kW

Vehicle Models (If coded, see attachments)	Trans type M5, A4 (If applicable)	GVWR	Curb Weight	ETW or Test Weight	DPA / RLHP or Dyno Coeff. a=, b=, c=

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Date Issued:

Revisions:

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MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: _____ Engine Family: _____

Range Test Results							
Vehicle ID	Trans	(check one) ____ TW ____ ETW	(check one) ____ DPA ____ RLHP Or dyno coeff.	City Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
				Hwy. Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)

Battery Test Results: Specific Energy: Wh/kg _____

Fuel Fired Heater Test Results (emission results in grams/mile):

NMHC	CO	NOx

Remarks:

Date Issued:

Revisions:

----- **ARB USE ONLY** -----

Application:

Processed By: _____ Date: _____ Reviewed by: _____ Date: _____